SONY

HXC-100

Three 2/3-inch Power HAD FX CCD sensors compact portable SD / HD camera

Overview

Opening a New World of HD Production

Sony's standard-definition (SD) and high-definition (HD) production cameras have been widely accepted by a great number of video professionals around the world, due to their excellent picture performance and system versatility.

Sony is now proud to introduce the new HXC-100 HD/SD System Camera equipped with newly developed digital triax technology, which allows systems to be configured with conventional triax. The HXC-100 camera supports versatile applications for HD with a high-quality SD output. It uses the latest 14-bit A/D conversion circuit as well as the superb 2/3-inch Power HAD FX CCDs to bring out high picture quality.

Together with the highly compact 1.5 RU HXCU-100 Camera Control Unit and a remote control panel from Sony, the HXC-100 camera offers a fairly simple system. With a variety of beneficial functions packed into the camera, such as its Focus Assist function, the HXC-100 provides genuine user-friendliness.

Power HAD FX CCD provides even greater picture performance

The use of a new, state-of-the-art CCD sensor ensures high quality images even at low light level. The high sensitivity of F11 at 2000 lux, together with a signal to noise ratio of -55 dB combine

to deliver unprecedented picture quality.

Dual-format operation - 1080 50i and 720 50P.

The HXC-100 can operate in a wide variety of capturing modes, including 1080 50i and 720/50p. In addition this system has wide-band down convertor, which offers this system as top quality HD ready SD system camera.

Ergonomic Design

The design of the HXC-100 is based on over two decades of Sony experience in manufacturing broadcast video cameras and camcorders, and provides a high level of operability. All control switches and connectors are in the most logical places and are positioned for optimum functionality and ease of use. The HXC-100's low centre of gravity design allows the operator to carry the camera comfortably on the shoulder. In addition, the shoulder pad of the HXC-100 can be adjusted either forwards or backwards without using a screwdriver, so the camera can easily be moved to a well-balanced position.

Features

Power HAD FX CCD for high sensitivity

The HXC-100 is equipped with a newly developed three 2/3-inch type 2.2-megapixel HD CCD. Based on Sony HAD sensor technology and the latest on-chip lens structure, this new CCD offers a high sensitivity of F11 at 2000 lx. In addition to this performance, a wide variety of capturing modes including 1080/50i and 720/50P.

14-bit A/D (Analog to Digital) conversion

The HXC-100 utilises a 14-bit A/D convertor, which enables images captured by the high-performance CCDs to be processed with maximum precision. In particular, this high-resolution A/D conversion allows the gradation in mid-to-dark-tone areas of the picture to be faithfully reproduced. Thanks to this 14-bit A/D convertor, pre-knee signal compression at highlight areas can be

eliminated and the camera can clearly reproduce a high-luminance subject at a 600% dynamic range.

Digital triax operation

The HXC-100 camera utilizes a very high-quality digital triax system that expands its operability in field applications, as well as for studio production. The HXC-100's digital triax system can be integrated into conventional triax-based infrastructures, enabling an easy upgrade from existing systems.

This newly developed digital triax transmission system offers long cable runs of up to 1200 m (3937 feet)* via a ø14.5 mm cable between the camera and the CCU.

*The maximum cable length depends on the camera system configuration, lens type, and the number of cable connections.

Newly developed Focus Assist Functions

For easier focusing through the viewfinder, two types of focus assist functions are incorporated into the HXC-100: Viewfinder Detail and Focus Assist Indicator. To intuitively recognize a focusing point, users of the camera can add dedicated image-enhancing edge signals directly to the viewfinder as "Viewfinder Detail". The "Focus Assist Indicator" is a helpful tool for manual focus adjustments as a "focus meter". An indicator is displayed at the bottom or other positions of the viewfinder frame, enabling users to make more accurate and fine focus adjustments.

Simple System Configuration

The HXC-100 camera offers flexible configuration with the highly compact 1.5 RU-size HXCU-100 Camera Control Unit, creating a standardized 19-inch rack system that is ideal for space-limited production areas. Combined with the HXCU-100, the HXC-100 can be configured as a simple studio system.

Equipped with the latest Sony-developed digital transmission technology, the HXCU-100 can transmit high-resolution pictures between the camera and CCU, regardless of the cable length. The HXCU-100 features flexible interfaces of selectable inputs/outputs between HD-SDI and SD-SDI.

What's more, the optional HKCU-FP1 CCU Front Control Panel is also available. When the front panel of the HXCU-100 is replaced with the HKCU-FP1, a simple remote control system can be configured. Many functions of the camera can be controlled by the control knobs and switches on the HKCU-FP1.

Robust Design

In order to survive the stresses of professional use, the main chassis of the HXC-100 is made of a magnesium-alloy casting. This rigid body makes the camera highly durable and helps to protect its lightweight precision components such as the integrated optical and electronics.

In addition, the outside cover panel is designed as a dual structure consisting of a main structure and a cover part. Due to this revolutionary structure, the cover can be replaced easily if damaged, thereby protecting the value of your asset.

Specifications

General	
Power Requirements	180 V DC, 1.0 A (max.), 12 V DC, 7 A (max.)
Operating Temperature	-10°C to +45°C -4°F to +113°F
	-20°C to +60°C

Storage Temperature	-4°F to +140°F
Mass	Approx. 4.4 kg Approx. 9 lb 11 oz

Camera Section

Pickup Device	3-chip 2/3-inch type CCD
Effective Picture Elements	1920 x 1080 (H x V)
Signal Format	1080i/50, 1080i/59.94, 720p/50, 720p/59.94, 480i/59.94, 576i/50
Spectrum System	F1.4 prism system
Lens Mount	Sony bayonet mount
Built-in Filters	CC: Electrical ND: 1; CLEAR, 2; 1/4ND, 3; 1/16ND, 4; 1/16ND
Sensitivity (at 2000 lx, 3200K, 89.9% reflectance)	F10 (59.94 Hz), F11 (50 Hz)
Signal-to-noise Ratio	HD : 55 dB (1080i) SD : 65 dB at 59.94 Hz, 63 dB at 50 Hz

Modulation Depth	HD : 45% at 27.5 MHz (1080i) SD : 90% at 5 MHz (1080i, typical)
Horizontal Resolution	HD : 1,000 TV lines SD : 900 TV lines
Shutter Speed	1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000 sec (59.94i mode) 1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000 sec (50i mode)

Input/Output

Audio Input (CH1)	XLR-type 3-pin (female) (x1)
Audio Input (CH2)	XLR-type 3-pin (female) (x1)
Mic Input	XLR-type 3-pin (female) (x1)
Return Control Input	6-pin (x1) BNC (x1), 1.0 Vp-p, 75 Ω
DC Input	XLR-type 4-pin (x1), DC 10.5 V to 17 V
DC Output	4-pin (x1), DC 10.5 V to 17.5 V, 0.5 A (max.)
Test Output	BNC (x1)
SDI Output	BNC (x1) HD-SDI or SD-SDI selectable

Earphone Output	Stereo mini jack (x1)
CCU	Triax connector (x1)
Tracker	10-pin (x1)
Intercom 1	XLR-type 5-pin (female) (x1)
Remote	8-pin (x1)
Lens	12-pin (x1)
Viewfinder	20-pin (x1)

Supplied Accessories

Supplied Accessories	Cable clamp belt (1) Switch label (1) Operation manual (1)

Gallery

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